Bruhat Bengaluru Mahanagara Palike

NAME OF WORK: Modified estimate of Restoration and Improvements of Balance main and cross roads of Nagenahalli , Harohalli , Kenchenahalli villages, Srinidhi layout, ISRO layout,KEB layout and surrounding areas in ward no -02. of yelahanka Sub division (PACKAGE NO-02) (Number of Works-05)

Sl.No	Description	Unit	Schedule-B Qty	Executed Qty	% of work completed	20%	40%	60%	80%	100%
1	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)	Sqm	563.75	0.00	0.00					
2	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 8km lead= 57+2.0x1.28x =77.48	Cum	6842.53	5256.22	76.82					
3	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)	Cum	1074.88	872.39	81.16					
4	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)	Cum	2096.38	1707.66	81.46					

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Sl.No	Description	Unit	Schedule-B Qty	Executed Qty	% of work completed	20%	40%	60%	80%	100%
5	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2	Tonne	129.70	101.74	78.45					
6	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc conmplete (Data Rate)	Sqm	5560.41	4404.56	79.21					
7	Providing and fixing RCC precast cover slab of 230mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)	Sqm	550.38	404.28	73.45					
8	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No.KBS 4.1, 4.2 (P.No.12 I.No.4.6)	Cum	87.35	0.00	0.00					
9	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)	No's	9706.00	9706.00	100.00					

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	Description	Unit	Qty	Qty	% of work completed	20%	40%	60%	80%	100%
10	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)	Sqm	1528.70	1528.70	100.00					
11	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 8km lead= (I No-19.14,P No.142)	Cum	13274.89	9953.42	74.98					
12	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P No.146 I No.19.56)	Sqm	2664.90	1069.50	40.13					
13	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)	Sqm	43419.20	28534.85	65.72					
14	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)	Cum	5269.78	4286.17	81.33					
15	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)	Cum	7559.36	5706.97	75.50					

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	Description	Unit	Schedule-B Qty	Executed Qty	% of work completed	20%	40%	60%	80%	100%
16	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158 I No-21.6)	Sqm	37796.78	28928.69	76.54					
17	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30	Cum	1889.84	1446.43	76.54					
18	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161 I No-21.7)	Sqm	37796.78	28928.69	76.54					
19	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-ll (30 mm to 45 mm) with 5.4% VG-30	Cum	1511.87	1157.15	76.54					
20	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)	Sqm	1091.40	394.61	36.16					

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	Description		Qty	Qty	completed	20%	40%
21	KSRRB M800 Road markers/ Road stud , KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS (Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering thje lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97-DO III Dt 11.06.1997.The height, width and length shall not exceed 50mm, 100mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree.The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30mm)from the body is to be a minimum value of 500kg. Fixing will be by drilling holes on the road for the shanks to go inside, without ails and using epoxy resin based adhesive as per manufacture's recommendation and complete as directed by the engineer.(P.No-187,I No-24.41)	No's	198.00	0.00	0.00		
22	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202(P.No.140- I.No.18.47) & Pg No.136, Item No.17.4,17.1 (8km lead = 57+2*1.28X8)	Cum	1049.88	135.13	12.87		

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Sl.No	Description	Unit	Schedule-B Qty	Executed Qty	% of work completed	20%	40%	60%	80%	100%
23	KSRRB M600-1. Providing and Constructing dry lean cement concrete mix CC1:5:10 Base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum over a prepared sub-base coarse and fine aggregate conforming to IS: 383-2016, aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. do- with OPC at 150 kg/cum and Coarse agrregate 0.86cum, Fine aggregate 0.58cum using Concrete batch Mix Plant at 75 Cum/hr capacity with fixed form Paver	Cum	1003.95	101.35	10.10					
24	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire chargedof machines,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No 176Item No 22.6.1	Cum	1003.95	101.35	10.10					

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore